

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/944,174
Attorney Docket No.: Q65929

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A method of transmitting a data packet from a first transmitting/receiving device to a second transmitting/receiving device, comprising:
transmitting at least two transmit authorizations from the second transmitting/receiving device to the first transmitting/receiving device;
transmitting the data packet from the first transmitting/receiving device to the second transmitting/receiving device following the reception of transmit authorizations; and
interrupting the transmission of transmit authorizations from the second transmitting/receiving device to the first transmitting/receiving device when the data packet is received, wherein contents of the received data packet are unrelated to the interruption of the transmit authorizations.

2. (previously presented): The method according to claim 1, further comprising:
sending at least two transmit authorizations from the second transmitting/receiving device to the first transmitting/receiving device when a further data packet is expected; and
transmitting the transmit authorizations from the second transmitting/receiving device to the first transmitting/receiving device is interrupted again as soon as the second transmitting/receiving device has received the further data packet.

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3. (previously presented): A method according to Claim 1, further comprising:
 - following the interruption of the transmission of transmit authorizations from the second transmitting/receiving device to the first transmitting/receiving device, sending at least two transmit authorizations from the second transmitting/receiving device to a third transmitting/receiving device; and
 - interrupting the transmission of the transmit authorizations from the second transmitting/receiving device to the third transmitting/receiving device as soon as a data packet from the third transmitting/receiving device has been received in the second transmitting/receiving device.
4. (previously presented): A method for sending transmit authorizations from a first transmitting/receiving device to a second transmitting/receiving device, the method comprising:
 - sending the transmit authorizations to the second transmitting/receiving device in a first time period, and
 - wherein the first time period is shorter than a second time period which adjoins the first time period and in which no transmit authorizations are sent to the second transmitting/receiving device.
5. (previously presented): The method according to claim 1, wherein time intervals between two transmit authorizations fulfill predetermined delay jitter requirements.

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6. (previously presented): The method according to claim 4, further comprising: the first transmitting/receiving device transmitting authorizations to a third transmitting/receiving device at least in a time slot of the second time period.

7. (currently amended): A control ~~entre~~center for a multiple access system comprising:
a control unit for controlled transmission of transmit authorizations to
transmitting/receiving devices,

wherein the control unit is capable of sending at least two transmit authorizations to the transmitting/receiving device and of interrupting the transmission of the transmit authorizations to the transmitting/receiving device as soon as the control center has received a data packet from the transmitting/receiving device.

8. (currently amended): The control ~~entre~~center according to claim 7, the control center having a form of a head end or a hub of a HFC- or HFR system, a control center of a hyperLAN system, or a base station of a LMDS- or UMTS-system, and the transmitting/receiving device having a form of a cable modem or a radio station.

9. (previously presented): The method according to claim 1, wherein the second transmitting/receiving device automatically interrupts the transmission of transmit authorizations

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from the second transmitting/receiving device to the first transmitting/receiving device in response to receiving the data packet.

10. (previously presented): The method according to claim 9, wherein the second transmitting/receiving device automatically resumes the transmission of the transmit authorizations after a predetermined period of time, said transmission is resumed shortly before next data packet is expected to be sent from the first transmitting receiving device.

11. (previously presented): The method according to claim 1, wherein the contents of the received data packet comprise user data information or communication data information.

12. (previously presented): The method according to claim 1, wherein transmit authorizations are transmitted at a high rate to fulfill predetermined delay jitter requirements and wherein the transmit authorizations are transmitted only in time periods in which data packet is expected to be transmitted from the first transmitting/receiving device.

13. (previously presented): The method according to claim 4, wherein the first transmitting/receiving device is a control center controlling the second transmitting/receiving device and wherein the second transmitting/receiving device is a terminal.

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14. (previously presented): A method of transmitting data packets from a first transceiver to a second transceiver and from a third transceiver to the second transceiver, the method comprising:

sending at least two send authorizations at a high send authorization rate from the second transceiver to the first transceiver, where time intervals between the at least two send authorizations satisfy preset delay jitter requirements;

sending a first data packet from the first transceiver to the second transceiver after receipt of the at least two send authorizations, where the transmission takes place at a time derived from the at least two received send authorizations and where the transmission takes place at a low data rate, the low data rate being lower than the high send authorization rate;

suspending transmission of send authorizations from the second transceiver to the first transceiver after receipt of the first data packet; and

after the suspension of transmission and before a renewed transmission of at least two send authorizations from the second transceiver to the first transceiver, sending at least two send authorizations from the second transceiver to the third transceiver, where the transmission of the send authorizations from the second transceiver to the third transceiver is suspended as soon as a second data packet is received from the third transceiver in the second transceiver.

15. (previously presented): The method according to claim 14, wherein at least two further send authorizations are sent from the second transceiver to the first transceiver when a further data packet is expected, and wherein the transmission of the send authorizations from the

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second transceiver to the first transceiver is again suspended as soon as the second transceiver has received the further data packet.

16. (previously presented): A first transceiver for transmission of data packets to a second transceiver, comprising:

means for receiving at least two send authorizations sent at a high send authorization rate, which are sent by the second transceiver, where time intervals between the at least two send authorizations satisfy preset delay jitter requirements; and

after receipt of the at least two send authorizations, means for sending a first data packet to the second transceiver, where the transmission takes place at a time derived from the at least two received send authorizations,

wherein the means for sending the first data packet executes the transmission at a low data rate, the low data rate being lower than the high send authorization rate.

17. (previously presented): A second transceiver for transmission of send authorizations to a first and a third transceiver and for receipt of data packets from the first and the third transceiver, comprising:

sending module sending at least two send authorizations at a high send authorization rate to the first transceiver, where the time intervals between the at least two send authorizations satisfy preset delay jitter requirements;

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a receiving module receiving a first data packet from the first transceiver, where the data rate of the first data packet is lower than the high send authorization rate; and
a suspension module suspending the transmission of send authorizations to the first transceiver after the receipt of the first data packet,

wherein, after the suspension of transmission and before a renewed transmission of at least two send authorizations to the first transceiver, the second transceiver sends at least two send authorizations to the third transceiver and suspends the transmission of the send authorizations to the third transceiver as soon as the second transceiver receives a second data packet from the third transceiver.

18. (previously presented): The second transceiver according to claim 17, wherein the second transceiver is configured as a central station for a multiple access system, where the central station is developed as one of: a head end or hub of an HFC or HFR system, a central station of a HyperLAN system, and as a base station of an LMDS or UMTS system, and wherein the first and third transceivers are each developed as one of a cable modem and a radio station.

19. (new): The method according to claim 1, wherein the second transmitting/receiving device is a receiver of data transmitted by the first transmitting/receiving that serves as a sender of the data and wherein the authorizations authorize the sender to transmit the data to the receiver.

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20. (new): The method according to claim 1, wherein the authorizations authorize a sender to transmit data to a device sending said authorizations.

21. (new): The method according to claim 4, wherein the first time period and the second time period occur sequentially.

22. (new): The method according to claim 4, wherein the second period follows the first period or vice versa.

23. (new): The method according to claim 4, wherein time intervals between two transmit authorizations fulfill predetermined delay jitter requirements.

24. (new): The control center according to claim 7, wherein time intervals between two transmit authorizations fulfill predetermined delay jitter requirements.